9/27/01 - 3121

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September 27, 2001

Regulatory Division
United States Army Corps of Engineers (USACE)
P.O. Box 1890
Wilmington, North Carolina 28402-1890

Attn: Mr. Mickey Sugg

Re: MCB Camp Lejeune, Onslow County Projects

Dear Mr. Sugg:

As we discussed on September 13, 2001, Baker Environmental, Inc. (Baker) is conducting work at MCB, Camp Lejeune under the Atlantic Division, Naval Facilities Engineering Command (LANTDIV) Installation Restoration (IR) Program to comply with the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). We spoke of two projects in particular: 1) Site 35, Focused Natural Attenuation Evaluation (NAE), and 2) Site 84, PCB-Contaminated Soil Remediation.

Site 35

Baker will be conducting a Focused NAE at MCB, Camp Lejeune in a wetland area adjacent to Brinson Creek. This study is to help determine if Monitored Natural Attenuation can be selected to remediate hazardous and toxic substances present at the site. I have attached a project summary and some location and construction detail information for the proposed monitoring well cluster to be installed in Brinson Creek. This information will allow you to determine if Baker should complete the Pre-Construction Notification form. Accordingly, please inform Baker as soon as possible if a Pre-Construction Notification form is required, and if so, which type of Nationwide Permit would be required (e.g.; scientific measuring devices, or cleanup of toxic and hazardous waste).

Site 84

We also discussed a second site where wetlands may be impacted by future remedial activities at a PCB-contaminated site. Remediation goals for PCBs, or the type of future use of the site have not yet been determined. Baker is preparing a Supplemental Investigation Letter Report that will be forwarded to you for your information, and to get your input regarding what activities may or may not require further coordination with, or permitting from, the USACE. The scheduled submittal date for this report is October 25, 2001.

Should you have any questions regarding these projects or the information provided, please don't hesitate to call me at (412) 269-6117. Baker appreciates your assistance on these important projects.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Ellen Bjerklie Hanna

Ellen Bjerklie Hanna
Project Engineer

EBH/lp
Attachment

cc: Mr. Kirk Stevens, Naval Technical Representative, Code EV23 (w/ attachments)
Mr. Rick Raines, EMD Camp Lejeune (w/ attachments)
Mr. Scott Bailey, CH2M Hill (w/ attachments)
Mr. Chris Bozzini, CH2M Hill (w/ attachments)

Proposed Monitoring Well Cluster in Brinson Creek, Onslow County

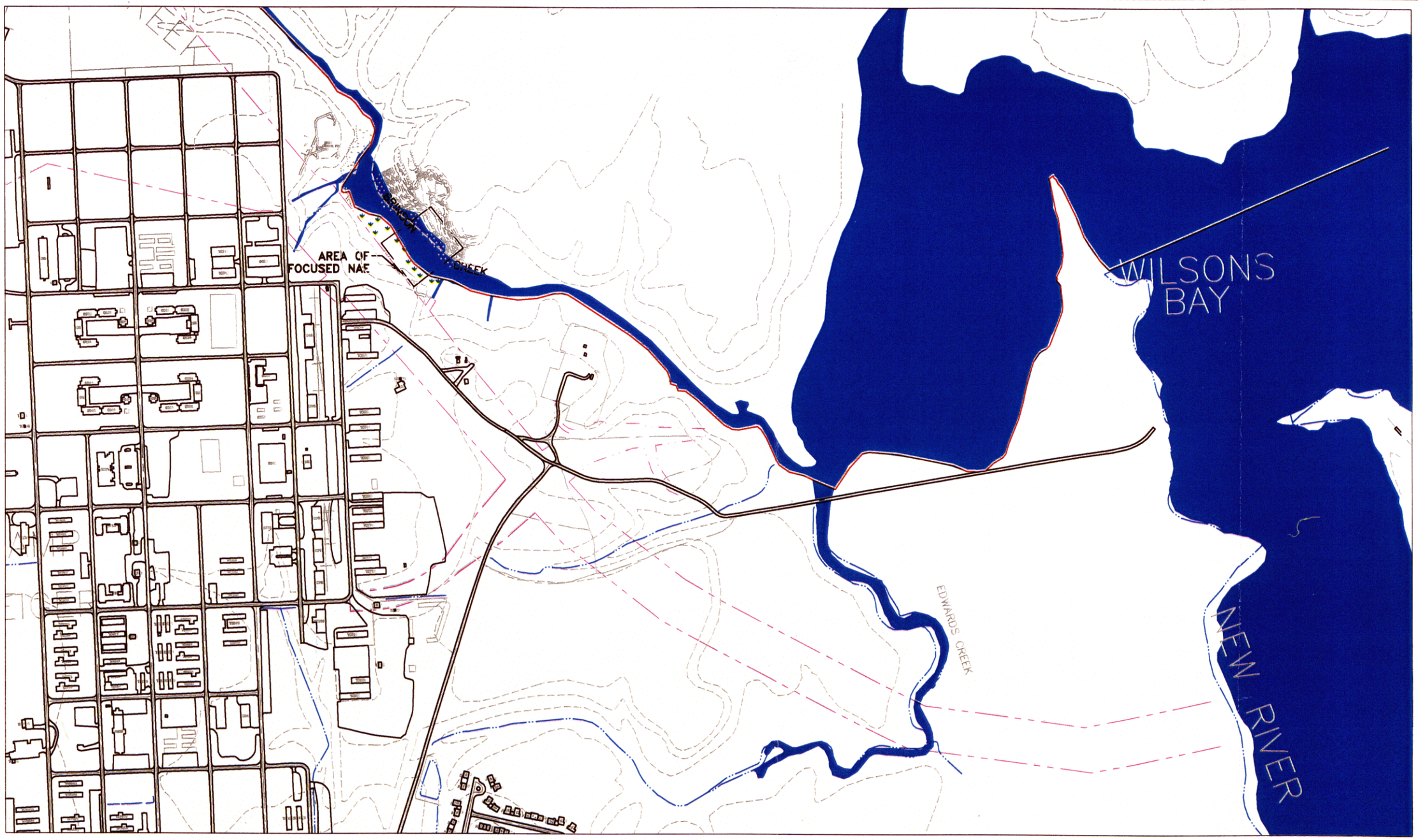
Baker Environmental, Inc. (Baker) will be conducting a Focused Natural Attenuation Evaluation (NAE) study in the wetland area as shown on Figure 1. This wetland area is located along Brinson Creek and adjacent to Camp Geiger and the North Carolina Route 17 Bypass construction project. Chlorinated solvent and petroleum hydrocarbons in groundwater at Camp Geiger and the wetland area are being monitored to determine if natural attenuation of these contaminants is occurring. Greater understanding of the natural attenuation processes in the wetland area is necessary to determine if Monitored Natural Attenuation is an appropriate technology to use to remediate the contaminant plumes in this area. In order to accomplish this, the study includes the installation of a total of nine temporary monitoring well clusters, one of which is proposed to be installed in Brinson Creek (cluster 4). This location is considered vital for assessment of contaminant distribution and redox conditions under the creek.

It is proposed that one temporary well cluster (consisting of three wells) will be installed in Brinson Creek at the location shown on Figure 2. A tripod rig mounted on a flat bottomed boat (or an ATV drill rig, if appropriate) will be used to install this well cluster. The boat will be launched from the bank of Brinson Creek, opposite Site 35. Access to Brinson Creek will be through the existing wetland on the south side of the creek and will be made in accordance with best management practices. Mats (timber, fibrous, or synthetic) will be used to minimize vegetative disturbance, rutting from equipment, and soil compaction. The mats will be removed after installation of the well cluster. The number of trees that need to be cleared in order to bring equipment to the creek will be minimized as much as possible. No excavation or filling will be required to provide access to the creek.

A 6-inch diameter steel casing and drilling tools will be advanced through a hole in the center of the boat. All three wells will be installed inside the 6-inch steel casing. Each individual well will be constructed of 1" outside diameter polyvinyl chloride (PVC), with a one to five-foot screen (0.01" slots). Sand and bentonite seal will be placed around the PVC inside the steel casing. The casing will be raised to expose the screens. The three wells will be installed such that the screens are between 15 and 30 feet below ground surface so that different zones of the aquifer can be sampled. The PVC and steel casing will extend approximately 3 feet above the surface of the water at high tide. Well details are shown on Figure 3.

Upon well installation completion, a wooden post will be driven into Brinson Creek adjacent to the wells. A warning sign will be posted to direct all recreational boats away from/around the wells/post. MCB, Camp Lejeune will be required to capture drill cuttings and prevent sediment transport during well installation.

The well cluster will be sampled four times over a one year period and will then be physically removed at the completion of the study. The formation will be allowed to collapse on itself. No cement/grout will be used to abandon the well location.



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LEGEND

- CAMP LEJEUNE PROPERTY LINE
- AREA OF FOCUSED NAE
- FORMER CAMP GEIGER FUEL FARM
- US 17 JACKSONVILLE BYPASS RIGHT-OF-WAY LIMITS
- APPROXIMATE LOCATION OF WETLANDS

SOURCE: LANIER AND ASSOCIATES

FIGURE 1
SITE PLAN
SITE 35, FORMER CAMP GEIGER FUEL FARM
FOCUSED NAE, CTO-0219
MARINE CORPS BASE, CAMP LEJEUNE,
NORTH CAROLINA

2219501N

C'

CLUSTER 5
IR35–TW69–TW73

CLUSTER 4
IR35–TW64–TW68

BRINSON CREEK

CLUSTER 8
IR35–TW80–TW82

CLUSTER 3
IR35–TW59–TW63

CLUSTER 6
IR35–TW74–TW76

CLUSTER 2
IR35–TW54–TW58

CLUSTER 9
IR35–TW83–TW85

CLUSTER 1
IR35–TW49–TW53

ASSUMED CENTERLINE
OF CONTAMINANT FLOW

C

CLUSTER 7
IR35–TW77–TW79

BRINSON CREEK

DRAIN

50 0 25 50
1 inch = 50 ft.

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SOURCE: LANIER AND ASSOCIATES AND MARINE CORPS BASE, CAMP LEJEUNE 2000.

LEGEND

CLUSTER 1 – MONITORING WELL CLUSTER WITH TEMPORARY WELLS AS SHOWN

– U.S. ROUTE 17 RIGHT–OF–WAY

– PROPERTY LINE

– WETLAND

FIGURE 2
PROPOSED WELL CLUSTER LOCATIONS
SITE 35, FORMER CAMP GEIGER FUEL FARM
FOCUSED NAE, CTO – 0219

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA

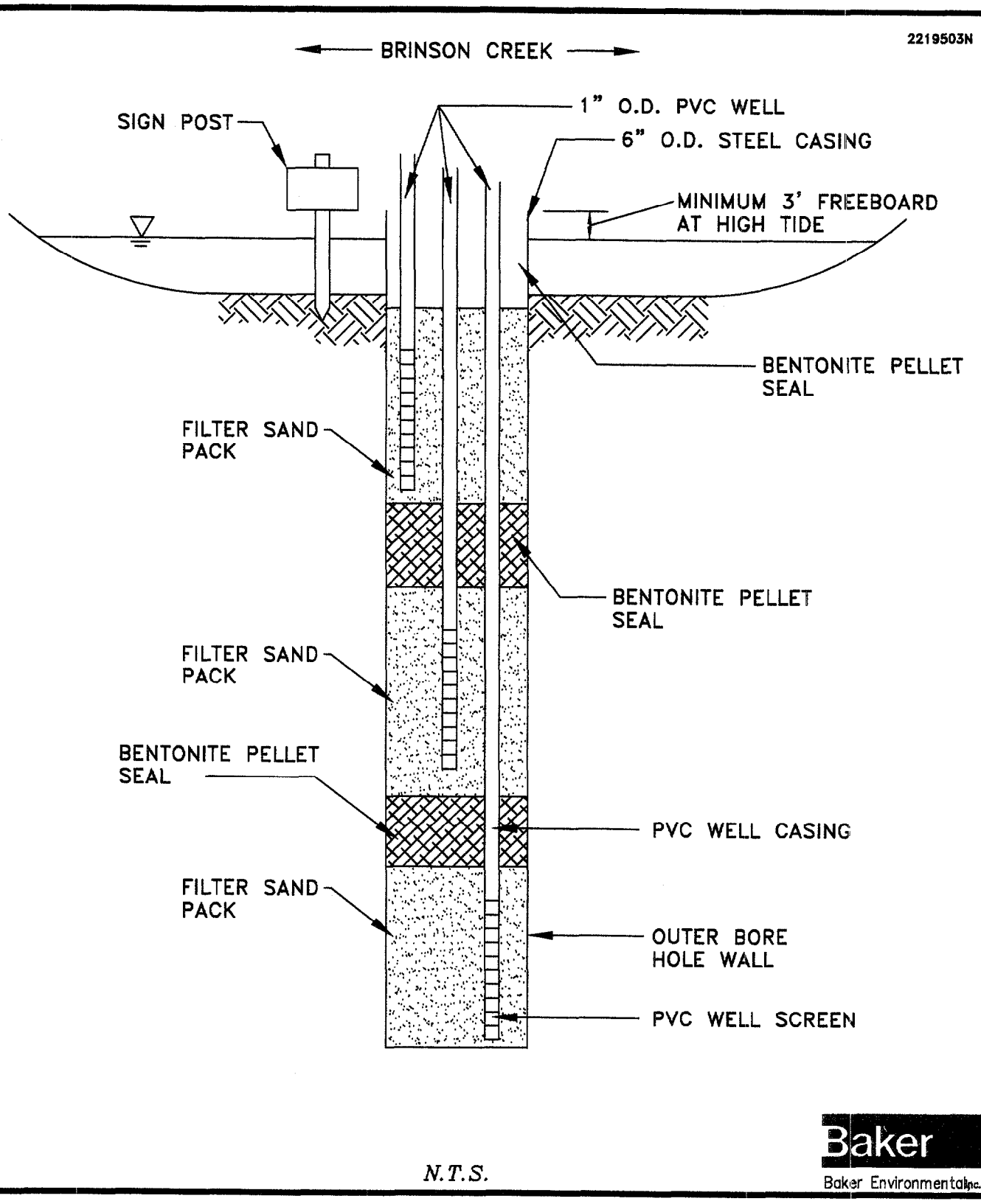

FIGURE 3
MONITORING WELL CONSTRUCTION DIAGRAM – BRINSON CREEK
NATURAL ATTENUATION EVALUATION
CTO – 0219

MARINE CORPS BASE, CAMP LEJEUNE
NORTH CAROLINA